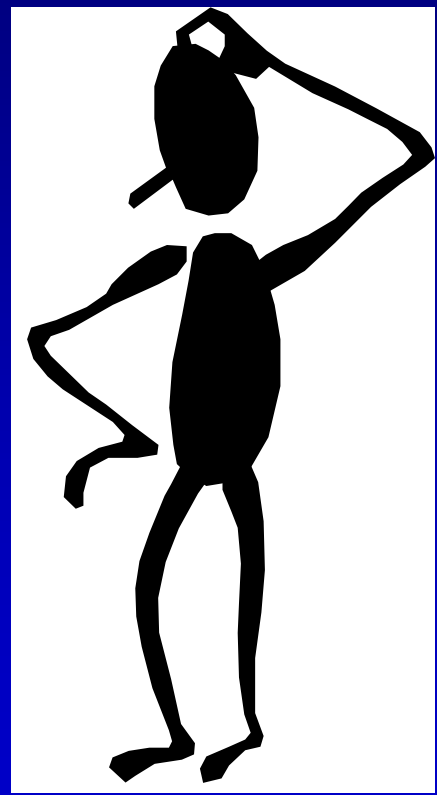
Land Use-Transportation Performance Measures: A Virginia Perspective

Trip Pollard

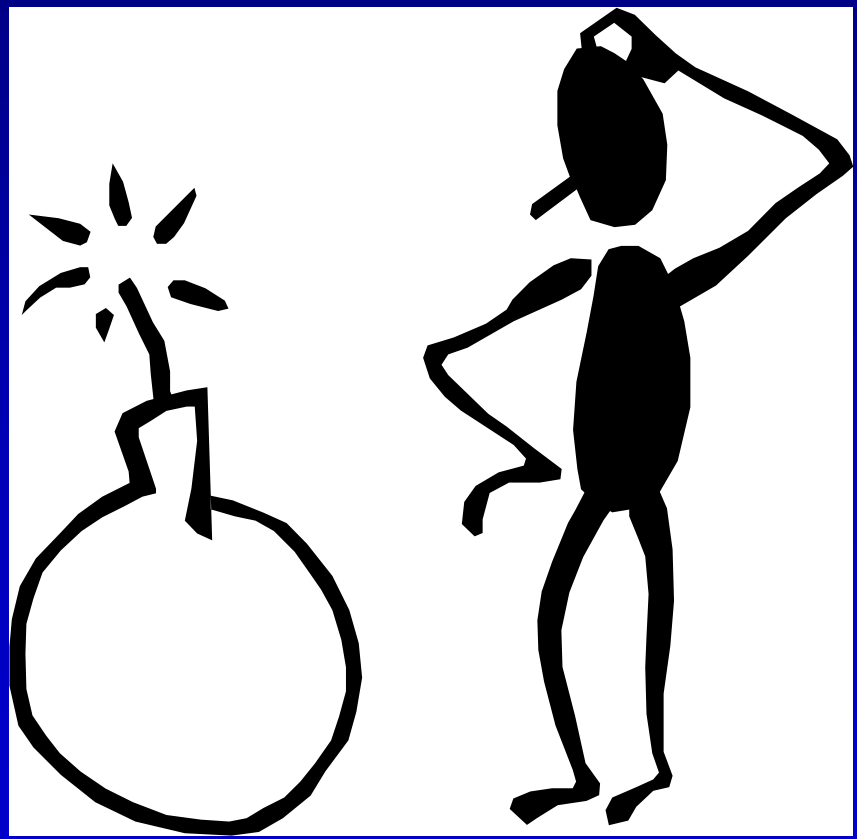
Southern Environmental Law Center

Questions

- What do we mean when we talk about the relationship between land use and transpiration?
- What is effective land use/transportation coordination?
- How do we know if policies we put in place address that relationship?
- Can we measure it at the state level?
- Do we want different measures for different locations?
- What kind of target makes sense?
- Is job/housing balance a good measure? What does it tell us?
- What about VMT per capita?
- What are best practice examples?
- How should the performance measures influence the budget?



Understanding the Context



Land Use and Transportation Top Recent Political Issues

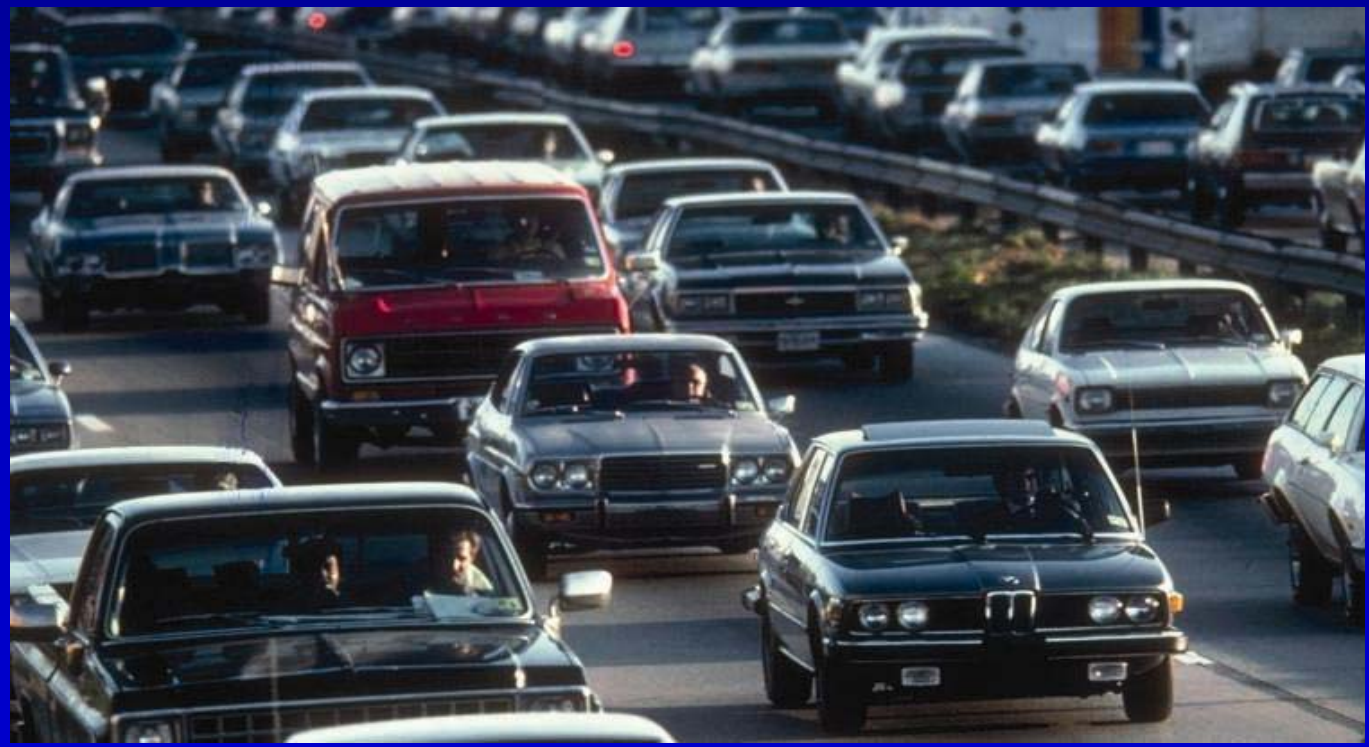
Loss of Open Space

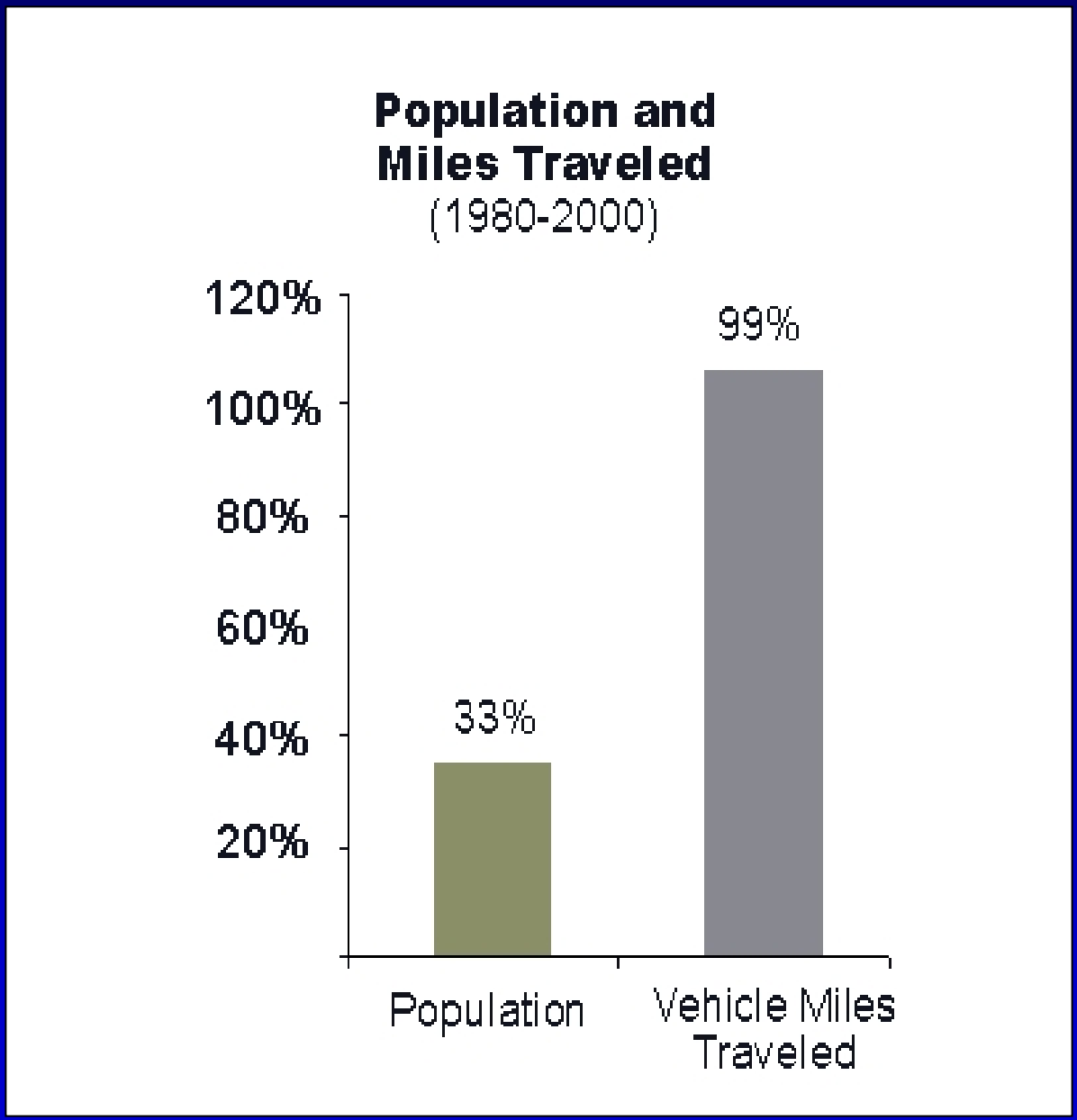
- Virginia developed 343,500 acres between 1992 and 1997, almost 190 acres each day
- Over 30% was farmland

If current trends continue, Virginia will develop more land in the next 40 years than it has in the last 400.

Driving and Congestion

- People in Virginia drove over 78 billion miles in 2004—farther than the distance to the sun and back every day.
- Virginians lost almost 157 million hours due to traffic in large urban areas in 2003.




Population and
Miles Traveled
(1980-2000)
120%
100%
80%
60%
40%
20%
33%
99%
Population
Vehicle Miles
Traveled

Fiscal and Economic Impacts

- Higher Infrastructure and Service Costs
- Higher Household Costs
  - Average southern household spends more on transportation than on health care and food combined
- Costs Fuel and Delay-Individuals and Business
- Transportation Funding Squeeze; Concern Whether Getting Money's Worth

Energy and Economic Impacts

Over 5.1 billion gallons of motor fuels were consumed in Virginia in 2004

Environmental and Health Impacts

- Loss of Open Space
- Air Pollution
- Water Quality
- Loss of Wetlands
- Wildlife
- Climate Change

Transportation/Land Use Link

- Relationships transportation and land use complex and multi-faceted
- Transportation policies and investments shape the pace, scale, and location of development

Transportation/Land Use Link

- Land use policies, practices, and patterns influence the mode and distance of travel

Eastern Planning Initiative Scenarios

Each scenario assumes ~ 330,000 population; 220,000 employment

Measure / Sustainability Accord	Disp-ersed	Town Ctr		
			CoreL	CoreM
Pct. Farms and Forests Retain resources/habitat/farms/forests	*55*	64	65	65
Pct. Developed Retain resources/habitat/farms/forests	*45*	36	35	35
Pct. Living In Clustered Communities Optimize use/cluster/human scale	*13*	61	68	68
Pct. Non -auto Trips Transportation Alternatives	*4*	15	18	18
Annual Gallons Gas Consumed (billions) Conserve Energy	*155*	121	110	114
Pct. Travel Congested Employment / Education Access	*44*	27	20	21
Water Quality and Quantity Water Quality and Quantity	*Poor*	Good	Good	Good

Red/italics– Comparatively worst

Source: TJPDC

Transportation/Land Use Disconnect

- Land use decisions largely ignore transportation impacts; LU/T components many comprehensive plans weak
- Transportation decisions largely ignore land use impacts

- "Connecting transportation and land use is critical to getting the most from our transportation investments, to reducing congestion, and to protecting our neighborhoods and communities."
- "We cannot allow runaway development to clog our roads and ruin our beautiful landscapes."

2006-2007 Sessions T/LU

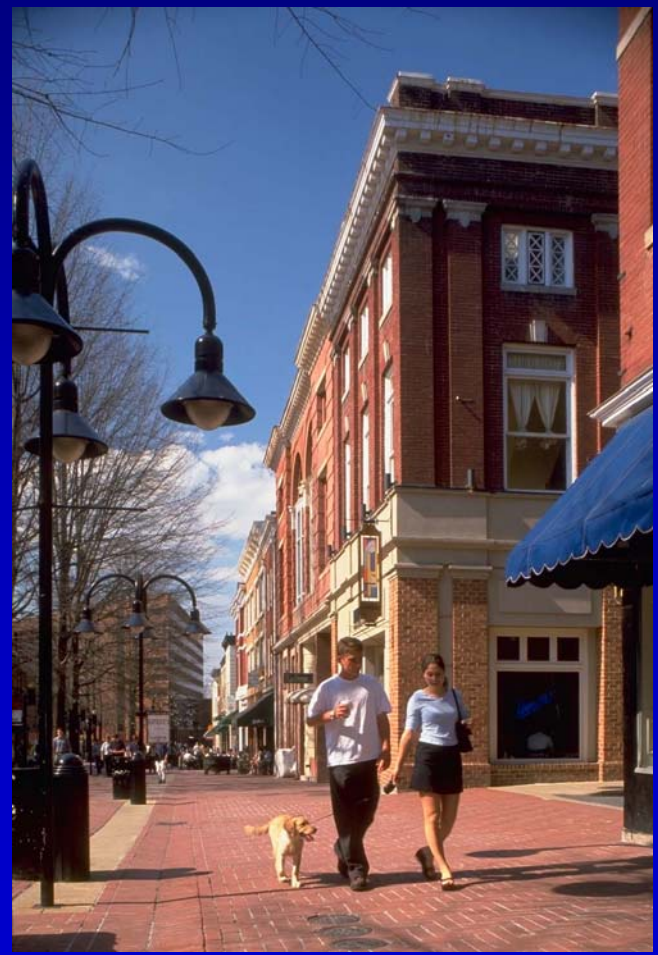
- Traffic Impact Analysis
- Access Management
- TDR
- Clustering
- HB 3202
  - Performance measures
  - UDA
  - Secondary street standards include connectivity
- More to come

Some Virginia Factors

- Role state/local in T-LU; but change
  - Independent cities; Dillon Rule
- Nature development, transportation needs, impacts vary between and within regions
- Data and resources available differ
- Tension city and suburb, inner and outer suburb
- Policy players this issue (CTB, Governor's Commission, Legislative Commission)
- Very different political environment/policy structure states such as OR and FL
- But increasingly similar issues

What is Effective Transportation/ Land Use Coordination?

- State, regional, local aspects
- Coordination among state, regional, local
- More compact developments in concert with transportation improvements
- Reduce loss open space and environmental impacts
- Corridor/Access management
- Greater transportation options
- Reduce – or at least slow – congestion
- Stronger communities



What Do We Mean When We Talk About The Relationship Between Land Use And Transportation

- Transportation impact on pace location and scale of development
- Land development impact on mode and distance of travel

How Do We Know If Policies We Put In Place Address That Relationship?

Performance Measures

- Job/housing balance, and assess for different price housing and wage levels
- % workers within 15, 30 minutes of their job
- Number and % of jobs, number and % of dwelling units, % of population within ¼ and ½ mile of transit
- % growth in areas good/poor accessibility
- Number destinations within 15, 30 min travel

How Do We Know If Policies We Put In Place Address That Relationship?

Performance Measures

- Amount of land developed and developed per capita
- Amount of farmland, forests, wetlands developed
- Overall density and density of approved development
- VMT and VMT per capita
- Vehicle trips and vehicle trips per capita

How Do We Know If Policies We Put In Place Address That Relationship?

Performance Measures

- Modal shares for all trips
- Emissions and emissions per capita
- % new roads with sidewalk and bike lane/path
- Number of street connections per 100 acres
- Gallons of gas and diesel consumed

Can We Measure It At The State Level?

- State metrics possible – and useful – for some measures
- Others easier and/or more meaningful on regional and/or local basis (e.g., jobs/housing) but also look for state trends
- Some can do both
- Corridor measures

Do We Want Different Measures For Different Locations?

- Same basic metrics in most cases
- Additional nuances depending on locality and data

What Kind of Target Makes Sense?

- Change over time key
- Appropriate target differs by metric and location
- Recognize imprecision

Is Jobs/Housing A Good Measure? What Does It Tell Us?

- Is a useful measure
- Regional/local rather than state-wide
- Need to do for different prices of housing and for different wage levels
- It gives sense ability live closer to work and have shorter commutes; most trips not commute though

What About VMT Per Capita?

- Useful, but limits
- Indicator whether commute lengths increasing and whether retail and other services are widely dispersed
- Correlated with congestion growth in larger metro regions
- Indicator emissions

What Are Best Practice Examples?

- No single best practice
- Many states and regions exploring
- Number of potential measures
- Apply to Virginia
- Develop and phase in

How Should Performance Measures Influence the Budget?

- Political decision
- Likely to be a factor
- Recognize limitations
- Need more data
- Technical and financial assistance to localities/PDCs/MPOs